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ROCKS and MINERALS

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Geologists and Collectors



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June, 1942

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Whole No. 131

THE ROCKS AND MINERALS ASSOCIATION

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Organized in 1928 for the increase and dissemination of mineralogic knowledge

To stimulate public interest in geology and mineralogy and to endeavor to have courses in these subjects introduced in the curricula of the public school systems; to revive a general interest in minerals and mineral collecting; to instruct beginners as to how a collection can be made and cared for; to keep an accurate and permanent record of all mineral localities and minerals found there and to print same for distribution; to encourage the search for new minerals that have not yet been discovered; and to endeavor to secure the practical conservation of mineral localities and unusual rock formations.

Ever since its foundation in 1928, the Rocks and Minerals Association has done much to promote the interest in mineralogy. It has sponsored outings, expeditions, formations of mineralogical clubs and the printing of many articles that have been a distinct contribution to mineralogy.

Those of our readers who are members of the Association can rightly feel that they too were sponsors of these many achievements that have helped to give mineralogy a national recognition. Among your friends there must be many who would like to have a part in the Association's work—to share with you the personal satisfaction, the pleasure, and the benefits of membership. Will you give your friends this opportunity to join the Association by nominating them for membership?

Each new member helps to extend the

Association's activities—helps to make your magazine larger, better, and more interesting, and above all assists in the dissemination of mineralogical knowledge.

Some advantages of memberships: All members in good standing receive:

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Affiliation with the world's largest mineralogical society cannot fail to increase membership, enlarge circles of acquaintanceship, and stimulate a keener interest in mineralogy.

A list of affiliated clubs will be found among the back pages of the magazine.

ROCKS and MINERALS

PUBLISHED
MONTHLY



Edited and Published by
PETER ZODAC

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ROCKS and MINERALS

PEEKSKILL, N. Y., U. S. A.

The official Journal of the Rocks and Minerals Association

Chips From The Quarry

A HILL IN REVERSE

About two miles north of the Bear Mountain Bridge in southeastern New York is a small hill that has attracted unusual interest and much speculation. The hill is on the west side of the Hudson River and is about a 700-foot stretch of a newly opened section of Route 9W.

One day, some months ago when the new section was opened to traffic, a motorist happened to stop at the foot of the hill (perhaps to light a cigarette) when his car began to roll backwards—uphill—and to gain momentum as it rolled. The motorist, a native of that area who was familiar with the newly opened section, was truly amazed and allowed his car to roll to the very top where it came to rest. He put on the gas, drove to the bottom and stopped—and again the car began to roll backwards uphill as before. The astonished motorist could hardly believe his eyes over the incident. Naturally, he told all his friends and acquaintances who in turn passed the word on to others after they had verified the peculiar behavior of the hill. It was all very mysterious and no one could explain the phenomenon although a few were of the opinion that a huge body of lodestone must be present at the top of the hill and it was this mass which drew the cars uphill. The hill attracted so many curious visitors and created so much interest and discussion that it was finally brought to our attention and we were invited to be one of a party of five which were to investigate the phenomenon.

We found the conditions to be as stated. Our car rolled uphill and gained momentum as it progressed. It did look uncanny but—just one peak through an engineer's handlevel solved the mystery. The hill did not go *up* but *down*. It was an optical illusion.



The hill was on the shelf along the west side of a narrow valley the base of which was 30 or more feet below the road. At the apparent foot of the hill was a deep cut (left of road) while at the apparent top the terrain sloped right down to the road. Therefore, no matter at which end of the hill one might stand, it seemed to dip towards the cut or rise from it; actually the hill dipped from the cut or rose to it. The cars, therefore, did not roll backwards *uphill*, but backwards *downhill* whose grade was approximately 5%.

No doubt hills in other sections of the country possessing similar characteristics may also be due to optical illusions.

Peter Zodac

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MINERALS OF THE LOCKPORT DOLOMITE IN THE VICINITY OF ROCHESTER, N. Y.

By DAVID E. JENSEN

A region where sedimentary rocks predominate is seldom considered a mineral collector's paradise. However, there are exceptions to the rule and mineral enthusiasts in and around Rochester are extremely fortunate to have in their own side yards excellent collecting grounds which frequently yield specimens that rank among the best of their kind obtainable in New York State at the present time.

The Lockport dolomite (or Niagara limestone as it was called in earlier reports) has been known to mineral collectors in the western part of the state for well over one hundred years. Early mention is made of geodes of calcareous spar, selenite and crystals of fluor spar found at Niagara Falls and Lewiston. The excavation of the Erie Canal unearthed rich collecting grounds in the vicinity of Lockport. In Monroe County, the Pike and Nellis quarries and rock exposures on Allen's creek and in the Genesee gorge were early scenes of mineral collectors forays.

The Lockport dolomite extends east and west across the north central part of Monroe County in a layer approximately 170 feet thick. Analogous to the Niagara Falls in the Niagara River, it forms the crest of the upper falls of the Genesee River in the heart of the city of Rochester. It is the uppermost member of the Niagara group of Middle Silurian Age. The Rochester shales, about 80 feet thick, lie beneath it. The Pittsford shale, a local formation about 20 feet thick, rests on

top of the Lockport dolomite in the Rochester region. Directly overlying this layer are the Vernon and Camillus shales of Cayugan or Upper Silurian age.

The color of the Lockport dolomite varies from a gray or drab to a very dark gray. When broken with a hammer some pieces emit a strong bituminous odor. The freshly broken surface usually glitters due to reflections from cleavages of countless very minute dolomite grains. The rock weathers to a drab or brownish gray and the surface becomes pitted. Boulders of the Lockport dolomite which have been scattered by the glacier over parts of Monroe County and elsewhere are easily recognized by their color and deeply pitted surface. These boulders are coveted by rock garden enthusiasts as repositories for hen and chickens. Prominent glacial striae cover the top surfaces of exposures of the dolomite in many places along the northern line of outcrop.

There are several exposures of the Lockport in and around Rochester, but only three locations are of sufficient value to the collector at the present time to be considered here. These are; the Penfield quarry located on Whalen Road in the town of Penfield, east of Rochester; the Buffalo Road quarry, located off from Buffalo Road, in the town of Gates, just west of Rochester; and the dumps along the Barge Canal near Scottsville Road, also just west of the city. The first two quarries are operated by the Dolomite Products Co. primarily for crushed stone used in road construction. The Barge

Canal dumps have been intermittently re-worked in recent years also for crushed stone.

The important part about the Lockport dolomite as far as the mineral collector is concerned is the abundance of solution cavities which are lined or partly filled with minerals. The cavities are both rounded and irregular in shape and range from a fraction of an inch to over a foot in diameter. In some instances fragments of fossils, chiefly corals, remain in cavities indicating that the formation of such cavities was influenced by the greater solubility of the fossilized areas. The cavities occur at all horizons of the formation but seem to be most plentiful in three wide bands. Two of these bands, about three feet apart, occur about 60 feet from the base of the formation and are exposed near the top of Penfield quarry. The third occurs near the top of the formation and is exposed in the Buffalo Road quarry and in the Barge Canal. These horizons are apparently related to the Upper and Lower Shelby dolomite, stratigraphic divisions of the Lockport dolomite.

The minerals found in the cavities are all secondary in origin and in the majority of cases were precipitated from circulating ground water. The source of the chemical constituents is probably for the

most part from the Lockport formation itself or adjacent rocks. The lead and zinc may have been derived from deposits in the western Adirondack region.

Considered in the light mineral localities which are producing at the present time and from a mineral collector's, not a commercial point of view, the minerals found in the Lockport dolomite in the vicinity of Rochester rank very high. Choice cabinet specimens of anhydrite, selenite, calcite, celestite, dolomite, fluorite and sphalerite can be classed among the best of the species in New York State. All but the first two are nearly always crystallized. Good crystallized specimens of calcite, celestite, dolomite and fluorite from this area also rank very high among other localities in the United States. This does not mean that the collector will be rewarded with one or more super specimens on each collecting trip. Fine specimens may come to light but once in a season. The choicest await the lucky person who chances on the right cavity at the right time and can remove the specimen from its abode without shattering it. However, as long as the quarries continue to operate, the possibility of finding an outstanding fluorite crystal or celestite group, as the case may be, will remain.

It is extremely improbable that any of the minerals themselves will ever have



Penfield Quarry

(Enlargement from a kodachrome transparency)

The most prolifically mineralized zones are near the top edge of the quarry.

any commercial value. Galena and sphalerite which are important ore minerals of lead and zinc are too limited in occurrence to warrant even a passing consideration of their commercial utilization as ores.

It is rather curious to note that of the three localities mentioned for the Rochester region, each one may be characterized by certain types of a mineral species or by profusion or scarcity of an individual species. In general, the Penfield quarry is characterized by quantity and quality of species. The Barge Canal dumps are noted for large crystals of sphalerite and choice fluorite, and the Buffalo Road quarry is characterized by the choicest anhydrite. Local variations within a quarry itself may be noticed. For example many collectors were quite unhappy last summer because the operators of the Penfield quarry did not blast in the section of the quarry where past experience has shown that the best celestite and selenite might be found. Similar peculiarities incidentally are also noticeable at other outcrops and quarries in the Lockport formation of Western New York.

The minerals described below are the most abundant ones found in the Rochester region.

ANHYDRITE—This is a very common mineral in the Lockport dolomite in the vicinity of Rochester. It occurs in cavities as crude crystalline nodules which attain a foot or more in diameter. It ranges from massive to coarsely crystalline and is sometimes curved lamellar in structure. The color varies from a gray to pale blue and specimens grade from opaque or translucent. The peripheries of the nodules are usually altered to gypsum. Crystallized dolomite and calcite are common associates.

Good crystals have not been found but occasionally a broken nodule will reveal excellent cleavage sections of crude crystals. These exhibit the characteristic pinacoidal cleavages (3 good cleavages at right angles to each other). One such cleavage section, translucent and bluish in color and with a brachydome termination on one end, measured $2\frac{1}{2}$ x 4 inches and was imbedded in a grayish crystalline

anhydrite matrix.

The best specimens are found in the Buffalo Road quarry and along the Barge Canal. Specimens exhibiting the translucent blue cleavage faces are often of choice cabinet quality.

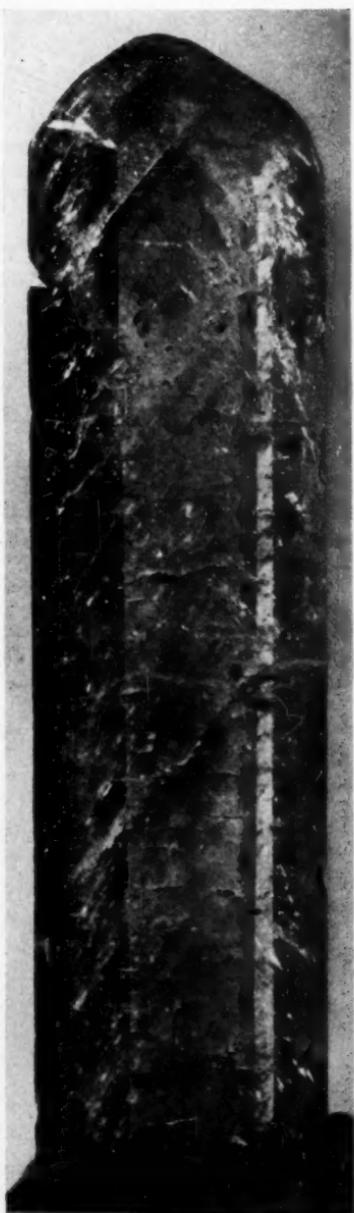
BARITE—Barite is not common. Lamellar, fibrous and prismatic crystal aggregates have been reported in the past. One recent find showed crudely crystallized barite in parallel position around a celestite crystal.

CALCITE—Calcite is very common. It usually occurs as acute scalenohedrons, sometimes modified by a rhombohedron (dogtooth spar). The crystals attain a length of 2 inches or more. The more minute crystals are usually clear and brilliant or smoky in color and often coat dolomite crystals. The larger crystals are semi-translucent and pale yellow in color. Usually the scalenohedron faces of the larger crystals are made up of multiple scalenohedrons arranged in parallel position.

The choicest calcite specimens come from the Penfield quarry. These are large yellow scalenohedrons which are often associated with dolomite and selenite to make very showy and attractive groupings.

CELESTITE—Celestite is very common. It occurs as fibrous, lamellar, or prismatic crystal groupings, often radiated in cavities. Frequently the prisms end in the wall of the cavity without any terminal faces.

Good crystals are not plentiful, but rank among the best in the United States. They range from gray and sub-translucent to translucent and colorless and are sometimes tinted pale blue or yellow. The crystal forms include the basal pinacoid, prism, macrodome, brachydome, pyramids, brachypinacoid and macropinacoid. Doubly terminated crystals are not infrequent. The largest crystal of recent discovery had one complete termination and measured $1 \times 4 \times \frac{1}{2}$ inches. One large cavity which was exposed two summers ago by prying off a slab of dolomite contained over 50 crystals measuring 1 inch or over and many smaller ones. Some crystals have been found with negative centers as if formed around an ortho-



*Large celestite crystal (4" long)
from Penfield Quarry.
(Photograph loaned by R. C. Vance)*

rhombic (?) crystal which had since dissolved away.

The Penfield quarry again is the source of the best celestite crystals. Often the crystals or groups penetrate selenite and make very attractive specimens.

DOLOMITE—Dolomite is one of the most abundant minerals in solution cavities and it is also a major constituent of the Lockport dolomite itself. It occurs as rhombohedral crystals lining cavities. The surfaces of the rhombohedrons are sometimes slightly curved. Small crystals are usually clear, brilliant and colorless. These grade into crystals which measure $\frac{1}{2}$ inch on an edge. The larger crystals are opaque and have a shining china-like luster.

Penfield quarry again is the best location for crystallized dolomite. Geode-shaped cavities lined with dolomite make handsome specimens. Occasionally the dolomite crystals are embedded in clear selenite and appear to be frozen in a pool of clear ice. Buffalo Road quarry specimens sometimes have a pinkish tinge.

FLUORITE—Fluorite is common. It occurs as individual crystals and crystal groups. The cube is the predominant form, commonly modified by the hexoctahedron, or the trapezohedron. Other modifying form have been reported but are not common. Crystals range up to 2 inches or more on a cube edge. They are usually clear and brilliant although occasionally the cube faces are deeply etched. Some crystals have negative orthorhombic (?) cavities, pseudomorphous perhaps after some mineral now dissolved out. The color varies from wine yellow to blue, purple and violet. Phantom growth zones are sometimes present. Certain yellow varieties show a greenish-yellow fluorescence probably due to inclusion of petroleum residues.

Penfield and the Barge Canal dumps share the honors of sites for the best fluorite specimens with the largest coming from Penfield. Clear crystals or crystal groups from either of these localities probably rank as the best of present producing fluorite localities in New York State.

GALENA—Galena is not very common. It usually occurs as fissure fillings in the massive dolomite forming veins about $\frac{1}{8}$ inch wide. Small crystals, up to $\frac{1}{4}$ inch in size consist of the cube modified by the octahedron.

GYPSUM—Gypsum is very abundant. It occurs in a variety of forms. Snowy massive nodules sometimes fill cavities. These infrequently have an anhydrite core indicating alteration of anhydrite to gypsum. The variety selenite is very common. Small crystals about $\frac{1}{4}$ inch in length consisting of clinopinacoid, prism and pyramid have been found in massive gypsum. A large specimen about $4\frac{1}{2}$ inches in diameter exhibited crude but distinct fish-tail twinning. Selenite cleavages are usually colorless and very clear and transparent but are sometimes silvery and opaque due to inclusion.

Selenite was one of the last minerals to crystallize as it encloses dolomite, calcite, marcasite and celestite crystals. Specimens of clear selenite with embedded crystals often make very attractive and interesting cabinet specimens. The best of these come from the Penfield quarry.

MARCASITE—Marcasite is common in some sections of the Penfield quarry. It occurs as dark, thin bladed, hair-like crystals, attached to or studded in dolomite crystals. The marcasite crystals are minute, seldom exceeding $\frac{1}{8}$ inch in length. They are striated longitudinally and the surface often exhibits beautiful tarnish coloring. Twinned crystals have been noted. Broken crystals have a metallic luster. In previous reports these crystals have been misnamed rutile and acmite.

PYRITE—Pyrite is not common. It occurs as druses and minute cubo-octahedral and modified dodecahedral crystals in the Buffalo Road quarry.

QUARTZ—Quartz is not common. It occurs as minute drusy crystals at both the Buffalo Road and Penfield quarries. It is more abundant at the former.

SMITHSONITE—This is reported as grayish incrustations at the Buffalo Road quarry. It is not common.

SPHALERITE—Sphalerite is common. It occurs both as small crystals in cavities and as cleavage masses in fissures in the dolomite. The crystals are of two types. The clear gemmy brilliant crystals ($\frac{1}{4}$ to $\frac{1}{2}$ inches) and crystal clusters usually occur on crystallized dolomite. These clear crystals range from light to dark amber in color and sometimes have black inclusions. The other type of crystal is opaque and yellow to yellowish brown in color and very resinous in appearance. The crystals are crude and much larger than the clear ones but nevertheless make attractive specimens. The dominant crystal forms for both types are a combination of tetrahedron and rounded dodecahedron.

Good clear crystals are found at all three localities with greatest abundance at Penfield. The large opaque crystals are most abundant at the Barge Canal banks.

SULFUR—Sulfur is very rare. A specimen from a collection showed $1\frac{1}{4}$ " pale sulfur yellow crystals (pyramidal in form) associated with drusy quartz. This type of material has been found in the Buffalo Road quarry.

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VACATION NOTES

By FREDERICK A. BROWN

Des Moines, Iowa

Two p.m., July 2nd, 1941, and the wife and son and I left Des Moines, Iowa, headed west for Denver, Colorado, and Rocky Mountain National Park. Grand Island, Nebraska, and Shady Bend Camp was the end of our day.

Arriving in Denver at eleven a.m., July 3rd, the first duty was to contact our daughter, and arrange for lunch. At lunch daughter informed us, "We are going to Mesa Verde National Park (S. W. Colorado)." Leaving Denver about 4:30, we had dinner in Colorado Springs and stopped for the night in Pueblo.

The morning of July 4th we were up and away. Walsenburg, Alamosa and then the first crystals were collected in LaVeta Pass—snow—but we had to leave them—no suitable means of transportation. We had luncheon at Pagosa Springs in view of the springs and the terraces. By 2:30 we were in Durango, secured a cabin for the night, freshened up and then on to Mesa Verde. Of course our objective here was the Cliff Dwellings.

We were leaving the park, and where the highway perches on the face of a cliff, off to the west across the plains below, we saw the beginning of a sunset which was the most beautiful we have ever seen. For an hour we enjoyed the most wonderful display of our lives.

The night of July 4th we were in Durango. Then early July 5th we headed north on U. S. No. 550, the "Million Dollar Highway," between Silverton and Ouray, Colorado.

At the south edge of Ouray is the famous Box Canyon. A very sharp turn back to the south from U. S. No. 550 to Colorado No. 361 about a block and you suddenly discover the Box Canyon. Where the highway bridge crosses the canyon it is about 20 feet wide and at least 100 feet deep, with a rushing mountain torrent at the bottom.

Here alongside of No. 361 and less than 200 feet from U. S. No. 550 lay a quartz mass. It was, perhaps, more than

a ton in weight, very light grayish, finely granular, and with numerous cavities of all sizes from a pea on up to larger than a walnut. The cavities were veritable crystal caves with beautiful hair-like quartz crystals pointing in from all directions.

From this mass, crystals were collected as small as 1/1000 of an inch in diameter (micrometer measure) and more than 1/8 inch long. Some of the cavities contained a black powder—have not tried to determine what it is as yet. Some of the crystals had on the free termination a dark material which made them look just like miniature matches.

July 5th took us to Montrose and then east on U. S. No. 50 to Salida, in south central Colorado, where we spent the night.

Next morning we drove two or three miles north on U. S. No. 285. Near a school house on the west side of the road we turned east across the railway, then south along the railway 1/2 mile to a farm yard. Here we turned east through the farm for 1/2 mile. This brought us to the mill site of the old Sedalia Mine, famous for its garnets. This mine was once a producing copper mine—with some gold, silver and lead.

I made a long hard climb to the top workings—open pit—where the garnets are found in schist. Not being prepared for any but superficial collecting, the garnets secured were not fine specimens. The variety is Almandite. This alters to Aphrosiderite. Garnets as large as 14 pounds have been collected at this locality. I secured some about 1 1/2 inch in diameter and one of 2 1/2 inches. While I was at the top, Mrs. Brown, down by the mill site, found the most perfect one secured, 1/2 inch in size.

Some small specimens of siliceous chrysocolla, in fact one specimen was pried from the chimney above the fireplace, which is all that is left of the house of the superintendent, were also found at the Sedalia Mine. Also took

away about a pint of debris from an ant hill here. At least 1/3 of the debris was garnet fragments. The remainder of the material is small copper grains, clear quartz, hematite, and other materials.

Another interesting mineral here is wavellite. In the short time spent here we did not locate any *in situ*, but did find some loose rocks which were mostly wavellite. In one instance it was very dark, almost black. In another a greenish gray. And one special specimen is nearly a perfect sphere an inch in diameter, of a grayish earthy color, whose surface is slightly rough as if made up of small, pin heads. Of course, I broke this into two nearly equal parts. The radiating structure is beautifully shown.

About the center the color is light gray growing darker to almost black near the surface. One other specimen found was almost a hemisphere, the same in appearance.

Since I like small crystals, I examined some shaly material secured near the Garden of the Gods at Colorado Springs, Colorado, on my return home. With a magnifying glass and a needle from the wife's sewing basket, I isolated some selenite crystals. Individuals 1/32 to 1/64 inches in length and correspondingly narrow, some in clusters of 3 to 6, were found.

The mineralogist would scorn the material brought home but I am having a heck of a lot of enjoyment with it.

CALIFORNIA'S 1941 CHROMITE AND MANGANESE ORE OUTPUT LARGEST SINCE 1919

Chromite

During 1941 shipments of chromite or chrome-iron ore in California amounted to 14,756 long tons, recalculated to a basis of 45% Cr₂O₃ and valued at \$342,218. The above came from ten properties in Placer County, four in Del Norte County, three each in Calaveras, Plumas, and Shasta counties, two in Fresno County, and one each in Eldorado, Humboldt, San Luis Obispo, Sierra, Siskiyou, and Trinity counties; and did not include properties that mined but did not make shipments. The 1941 totals showed increases in both amount and value over those of 1940, which were 2,321 long tons, recalculated to 45% Cr₂O₃ and worth \$32,769, and was the largest annual output since 1919.

Manganese Ore

Manganese ore shipped in California during 1941 amounted to 3,183 long tons, valued at \$75,057 varying in grade from 32.47% Mn to 48.8% Mn, and included some battery grade ore. The above material came from four properties in Stanislaus County, two in San Bernardino County and one each in Im-

perial, Plumas, and Trinity counties; and was utilized in the making of steel, in manganese chemicals, and in the manufacture of batteries; some of the ore was shipped to stock-piles for future consumption. The 1941 output was the largest since 1919, being a large increase in amount and value over that of 1940, which was 280 long tons, worth \$3,260.

Rocks and Minerals Free Samples Fund

Founded to cover cost of free copies of the magazine to be distributed during the New Jersey Mineral Show to be held later in the year.

Contributions Received From

Rocks and Minerals	\$10
John Albanese, Newark, N. J.	\$10
Miss Violet Miller, Brooklyn, N. Y. \$ 2	
Miss Evelyn Waite, Crestwood, N. Y.	\$ 1
Total	\$23

STANDPIPE HILL, TOPSHAM, MAINE

By LEO NEAL YEMLIN

Topsham, Maine*, is a locality noted for the quantity and variety of its pegmatite minerals. Strictly speaking, however, it is not a single locality. It can be described more accurately as a mineral region, for hundreds of pits, test holes, and worked ledges can be found, extending over an area of some 16 square miles. Topsham itself is a small village located on the north side of the Androscoggin River (across from Brunswick) in Sagadahoc County. The mineral workings extend in a north-south direction, east of highway 201, from Bowdoinham, thru Cathance (where the famous Fisher Quarry is located), thru Mt. Ararat to Topsham. A number of quarries were worked immediately west of the town, in the vicinity of the large water tower, and these became known as the Standpipe Hill localities, one of which is herein discussed.

Geology.—The rocks of the region are quartz-mica schists, intruded by pegmatites, and on occasion by granites. These run in a northerly - southerly direction, and at the Standpipe Hill locality there are test pits extending some 300 yards from the main workings which evidence this directional distribution. The pegmatite is coarse grained with large sheaves of biotite as the predominant mica.

Mineralogy.—On a visit to one of the quarries on April 19th, 1942 (see accompanying sketch) in the company of Andrew Snyder of Randolph, Maine, the following minerals were observed:¹

ALBITE—Pearly white masses abound, with occasional crystallized cleavelandite.

AUTUNITE—Platy yellow crystalline flakes on surfaces and in the seams in the feldspar.

*.Detailed descriptions of the region may be found in the following references:—Bastin, E. S., *Pegmatites of Maine*, U.S.G.S. Bull 445 (1911); Landes, E. K., *Paragenesis of Pegmatites of Maine*, Am. Min., 10, pp. 335-411, (1925); Palache, C., *A Topaz Deposit at Topsham, Maine*, Am. J. Sci., 27, (Jan. 1934); Burbank, B. B., *Topaz-Herderite at Topsham*, R. & M. Vol. 9, pp. 125-131 (1934).

BERYL—Rather rare. A single rough crystal, of honey yellow color, was observed. Larger masses of this material would cut beautiful golden gems.

BIOTITE—The prevailing mica is biotite. Masses and crystal sections up to a foot long are common. Splitting the books sometimes discloses flattened garnets, rather opaque, between the sheaves of the mica. The biotite may coat all the surfaces of a wedge-shaped piece of feldspar, and it is here that samarskite and monazite are usually found.

GARNET—Flattened crystals of almandite as noted above. Many small lustrous crystals, trapezohedrons, are scattered throughout the rock. One notable find was a bright red compound crystal, 4 inches in diameter, embedded in microcline.

HEMATITE—Small vugs in the feldspar contain brilliant black crystals of specular hematite. Occasionally a fresh surface of feldspar will be coated with glittering black scales of this iron oxide. Red-brown stains on old exposed cleavages evidence a once considerable quantity of this mineral.

HYALITE—The exposed surface of a large mass of quartz at one of the test pits was covered with a white blebbly skin of this material. It was not fluorescent.

MAGNETITE—Irregular octahedrons, up to 1 inch in size, are common in the granite. These react strongly to the magnet, but do not exhibit the properties of lodestone.

MICROCLINE—The prevailing feldspar. White, grey to pink. No crystals were found. It is in this material, in wedge shaped masses, coated with biotite, that samarskite and monazite occur.

MONAZITE²—Small, sharp, twinned crystals, dark brown and lustrous, are comparatively abundant. They usually occur in microcline, just at the contact between the biotite and feldspar, sometimes extending into the mica. The feld-

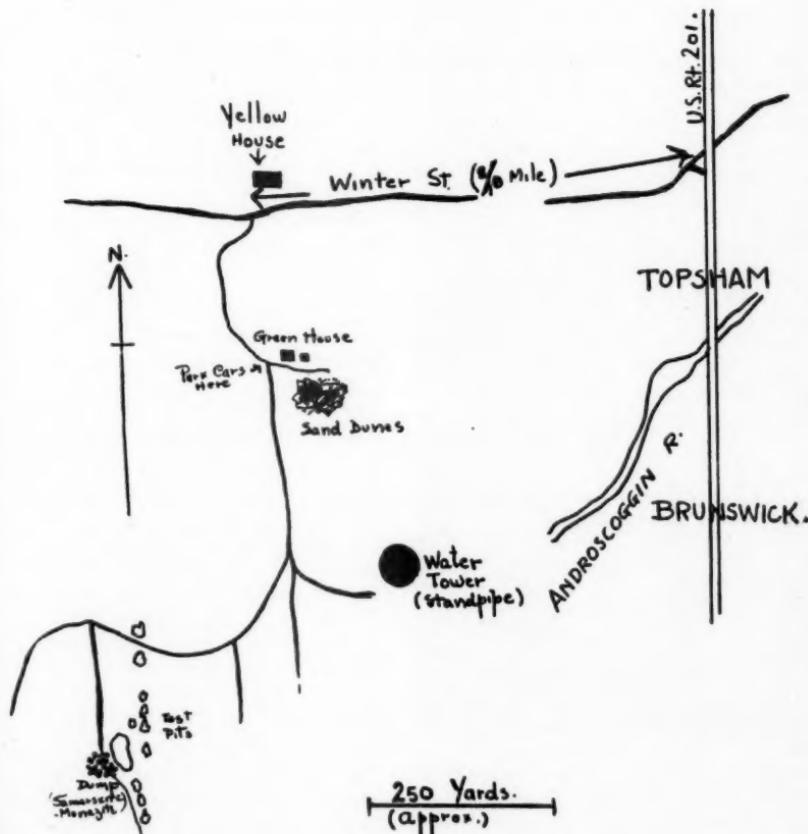
spar in the vicinity of the monazite and samarskite loses its vitreous lustre and becomes a bit chalklike, dropping about 1 degree in hardness. Several unusual specimens were found, one $1\frac{1}{2}$ " x $5\frac{1}{8}$ " astride a crystal of garnet, and a notable twin $1\frac{3}{8}$ " x 1". This crystal was embedded in rock, part in quartz, part in feldspar and part in biotite, an unusual occurrence here.

MUSCOVITE — Comparatively rare. Muscovite is more apt to be found in vugs in the feldspar, in minute crystals,

than as a normal constituent of the pegmatite.

QUARTZ—Everywhere abundant in pure grey and white masses. Tiny drusy crystals line the surfaces of seams and vugs in the rock.

SAMARSKITE²—Small crystals are common. These, like the monazite, are found in triangular shaped masses of feldspar. None was found in quartz. The crystals run to an inch in length, are terminated, have dull altered exteriors and are brilliant black on fresh surfaces.



Map showing location of Monazite-Samarskite locality.

SERICITE—Some altered mica, appearing as greenish yellow scales on microcline, was noted.

The rare earth minerals occur in a zone of feldspar on the west wall of the quarry about 8 feet below the surface. The pit is now filled with water, but the surface of the dump is covered with biotite coated microcline, indicative of monazite and samarskite.

The locality merits further study. Perhaps other interesting material will come to light. It is not known when it will be worked again, but the waste piles contain quite sufficient material for investigation.

1. Notable is the absence of tourmaline, black or colored. In a region of pegmatite so abounding in this mineral its lack is outstanding.

2. Some years ago, Mr. J. C. Boyle, of New York, who had returned from a trip thru Europe, described the occurrence of some of the rare earth minerals of Sweden and Norway. He presented the writer with a specimen of fergusonite from Evje, Norway. It is remarkable how alike the occurrence of this specimen is with that of the rare earth material found at Standpipe Hill. The wedge shaped feldspar, biotite mica, deadening of the feldspar's lustre in the vicinity of the fergusonite all attest to a more than casual similarity.

PYRITE FROM GLENDON, N. C.

A new locality for pyrite cubes was discovered recently in Glendon, Moore Co., N. C., by a member of the Rocks and Minerals Association. The crystals have deep etched figures on their surfaces and these figures are most interesting because they have been produced naturally, apparently by action of an acid solution upon the crystals while under extreme pressure. The crystals are embedded in pyrophyllite and the pressure, which is in the direction of the major elongation

of the pyrophyllite grains in the schist rock, has apparently rolled the crystals over, and caused such distortion of some of the larger ones that they are quite rounded.

A large number of these interesting crystals have been obtained by Ward's Natural Science Est., Rochester, N. Y., and were offered for sale in their advertisement in last month's issue of *Rocks and Minerals*.

CHRISTENING A PICK HAMMER

Editor's Note: One of our readers purchased recently an Estwing pick hammer from one of our advertisers. The pick arrived in time for a trip to one of Pennsylvania's noted localities.

Sunday, April 12th, Wm. Haeberle of Telford, Penn., and I, and of course the custodians of picks and hammers—the wives—heeded for the French Creek iron mines in Arctic weather. Sun came out; then later a little snow fell.

Well, we stood on the dump looking at my nice new shining pick which looked good enough to be placed in a cabinet labelled "What the well equipped Rock Hound should carry!" It seemed a shame to mess it all up in the

dirty soil! Finally I closed my eyes to keep out a tear or two from dropping and let go. It was all over after the first blow. The pick was christened and became a full time member of the crew and proved its worth on the first trip by turning up a very nice pyrite crystal (about $\frac{1}{2}$ inch) embedded in calcite with a few not quite as large for good measure. The Mrs. also found a number of good specimens. Of course we came home loaded with the usual finds.

I can recommend the Estwing pick hammer for its uncanny ability to locate good specimens.

Dr. C. Fred Becker,
Camden, N. J.

SQUARE GRAVEL

By A. C. HAWKINS

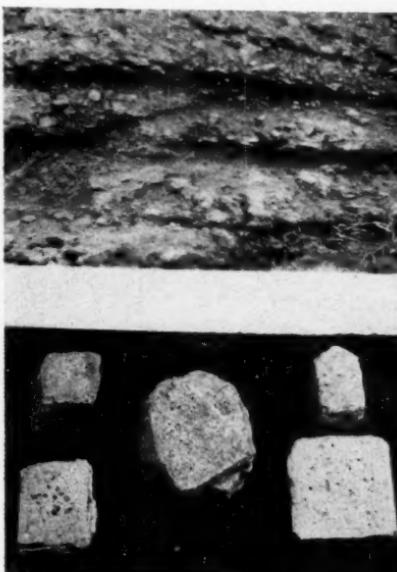
Among the mineralogical wonders of North Carolina, there seem to be a considerable number which have not yet been described. In this particular instance, let us call attention to a strip of rolling country at least 20 miles long and a mile or more wide, where "gravel" is abundant in all the fields of corn and cotton. Most of the "gravel-stones" are sharply angular, with a square or rectangular cross-section. All of these stones are light yellow feldspar. Wherever rounded pebbles are seen with them, these latter are invariably quartz.

The feldspar are very well crystallized and therefore worth collecting, as they range in size from 1 inch to 4 inches or more across. They have been produced by secondary growth in a pre-Cambrian granite gneiss, being what are technically known as "porphyroblasts." The ledges of gneiss are locally filled with them; they weather out into the soil; and many of them are complete, although a great number have been broken crosswise or lengthwise along cleavages. Crosswise breaking, which is for the most part along a cleavage direction, produces thin, flat tablets with a typically square outline, and exposes interior cross-sections to the elements. There appears on the weathered surfaces a pattern of concentric squares, caused by the removal of tiny biotite plates, which outline "phantoms" marking successive stages in the growth of each crystal.

The feldspar of these crystals is microcline, which shows a typical fine-grained "gridiron" structure under the polarizing microscope. But the microscope also discloses the fact that the crystals themselves are really closely intergrown aggregates of microcline, quartz, and biotite. Truly the feldspar grew under great difficulties; but it has asserted itself and succeeded in developing its typical crystal forms to an astonishing degree. The most common habit of the crystals is a combination of the basal

and brachy-pinacoids, with the prism and perhaps a minus macrodome; but there are also numerous excellent Carlsbad twins, which are, as usual, flattened on the brachy-pinacoid.

The most easily accessible place where you will find these crystals is on U. S. Route 601, just $7\frac{1}{2}$ miles northwest of Salisbury, N. C., in a rocky road bank at the southeast end of the bridge crossing Second Creek. The name of the creek is plainly given on a marker at the approach to the bridge. There are a number of places to the northeast of this locality where larger crystals may be found; but they are, for the most part, along obscure trails which traverse the heavily wooded hills on both sides of the Yadkin River.



Upper—Square gravel crystals in road bank on U. S. 601, just $7\frac{1}{2}$ miles northwest of Salisbury, N. C.

Lower—Square gravel crystals. Small dark spots in the crystals are biotite plates. Crystal in center is a Carlsbad twin; upper right, a simple crystal showing prism and pinacoid.

TWO INTERESTING LOCALITIES IN INDIANA

By ROY H. GROSSMAN

Batesville, Ind.

NEW POINT LIMESTONE QUARRY

Our first collecting trip to the New Point limestone quarry was in August, 1940, when we found nothing but pyrite and it was of poor quality. It was our impression, therefore, that the locality was poor in minerals.

On September 1st, 1940, Robert Knille and James Gibbs, two young collectors from Cincinnati, Ohio, came out on their bicycles to visit me. It was late when they arrived and so we spent the evening looking over my collection. It was not only a pleasure to have them visit me but they very kindly gave me many hints on how to label and to keep record of my specimens. The next morning we wanted to go out on a collecting trip but where to go was the question. I asked mother if she knew where Dad could take us and she suggested the New Point quarry. I did not think much of the idea but she pointed out that since the boys from Ohio knew so much more about minerals we might all be surprised over what might be found. So to the New Point quarry we went.

Before leaving for the quarry it was decided that we had to return early as the boys had a long trip back home. Mother was to have dinner for us by 11:00 a.m. but we did not get back until 1:00 p.m., because, as mother had surmised, we found many nice specimens. Time was much too short for my visitors as they were fascinated with the locality for we had collected some wonderful calcites, dolomites and other specimens. On our way home they kept telling me how lucky I was to have a quarry of such interest so near to my home. I did not appreciate my good fortune until we had made a number of trips to the quarry. Robert and James were right because I have found many more interesting specimens since then. It is also a grand feeling to keep on collecting and not to run away when the owner drives up. He knows we are harm'less rock hounds.

Rosalie, my three year old sister, has also learned to appreciate minerals and especially crystals. At first when I was trying to get the rock off the crystals, she was right there with her quarry-hammer, as she calls it, to help. It did not make much difference where she hit it, usually ending up with a smashed finger. All I had to do, then, to make her stop crying was to give her the crystal. Now she has a 10-cent magnifying glass and if the specimen is damaged she hands it back saying — "You keep that one, Roy, that's all messed up." It is not easy to retain good specimens for yourself when you have a little collector like Rosalie along.

Location and History

New Point is a little village in the southeastern part of Decatur County (in the southeastern part of Indiana). It is on state road 46 about six miles west of Batesville.

The New Point Stone Company quarry is located one mile north of New Point on a country road and on a small tributary of Salt Creek. The quarry is owned and operated by Theo. Wanstrath of Batesville. Stone is quarried over an area about 1600 feet long and 400 feet wide with an average height of 25 feet. Entire quarry contains about 56 acres. The stone (limestone) is used mostly for road building, road maintenance, concrete work, agricultural purposes, building and wall work. The quarry was opened up at least 75 years ago; ownership has changed many times since its opening. Mr. Wanstrath has owned and operated it since 1924.

Mineralogy

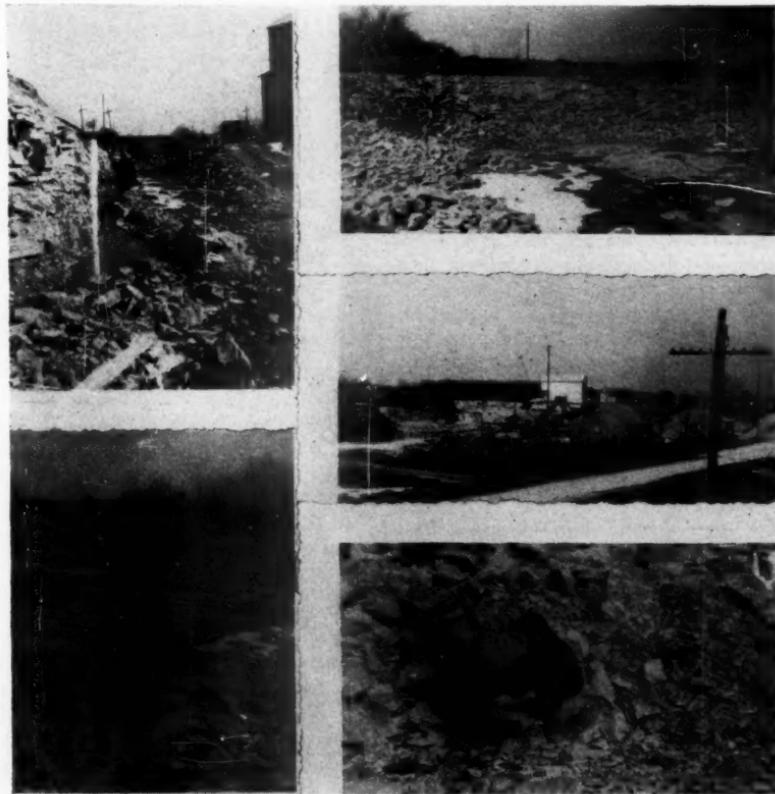
The following minerals have been found at the quarry:

Barite: One of the most interesting minerals to occur in the limestone quarry is barite and though found so far only in small specimens, one inch or smaller, it is always crystallized chiefly in thin

platy colorless to white crystals though sometimes of a reddish or brownish tinge due to iron. Specimens sent to the offices of *Rocks and Minerals* brought forth loud praises over their beauty and perfection, being acclaimed as one of the finest crystallized barites known from any locality.

Calcite: One of the commonest minerals in the quarry is calcite but it occurs beautifully crystallized so that many nice

specimens have been collected. It is present in a number of colors as colorless, white, golden yellow and in rhombohedron, scalenohedron (many are dog-tooth crystals) and other forms. A few small groups of calcite crystals were stained by iron (?) and their surfaces had a dark purplish iridescent luster. Calcite was also noted as a drusy encrustation on a brownish coral (favosit) which occurs in the limestone.



Upper Left—When quarry was first opened the Big Four R. R. used to haul the stone out under the bridge shown.

Lower Left—West end of quarry, looking east.

Upper Right—View of quarry looking north.

Center—View of plant and quarry from road, looking northwest.

Lower Right—Rosalie and Roy breaking out interesting crystals at the New Point quarry.

Chalcopyrite: Tiny crystals encrusting a blackish stained crystallized dolomite.

Dolomite: Beautifully crystallized, white in color but often the tips of the crystals are brownish or reddish due to iron; also blackish-stained as if smeared with oil and it too is crystallized. Dolomite is commonly associated with crystallized calcite.

Hematite: Tiny brownish globules, earthy, on crystallized white calcite. Also tiny reddish globules, some with centers missing so as to present symme-

trical rings, and both occurring together on crystallized white calcite.

Marcasite: Tiny slender metallic threads were noted as inclusions in crystallized colorless calcite.

Pyrite: This mineral is also common in the quarry. It has been found as small masses in the grayish limestone; as very tiny drusy crystals coating colorless dog-tooth calcite crystals; as minute, drusy, tarnished octahedrons (bluish-black color) on crystallized calcite; and as small inclusions in a loose, platy brownish barite crystal.

HAMBURG LOCALITY

Near the little hamlet of Hamburg, Ind., is an area about 3 miles long by 2 miles wide that is heavily eroded. Fifty or more years ago this area was cultivated by farmers but since then the land has been idle. In this abandoned country a few interesting minerals are quite plentiful, especially magnetite sand which is found in pockets varying from 6 inches up to 15 feet in depth.

Two years ago some men from Dayton, Ohio, flew over this section in an airplane and took pictures of the terrain. The pictures aroused considerable interest and within a few weeks the men returned by automobile to examine the area from the ground. Not knowing the exact location of the area, the men stopped my grandfather, showed him the pictures they had taken, and asked if he knew where the area was located. He not only told them how to reach the area with which he was well acquainted but also gave them brief history of the locality as he was one of the first settlers in the region. The men thought the abandoned area had no owners but were assured by grandfather that there were two or three of them but they did not live in the area. After thanking grandfather for the information the men drove off and were never seen nor heard of since. Grandfather calls the eroded area "ditches" and cannot understand why anyone should be interested in it since it has no value as farm land.

Location

Hamburg is a little village in the western part of Franklin County (in the southeastern part of Indiana). To reach the locality go west from Batesville for $\frac{1}{2}$ mile on state road 46 then turn north and go 8 miles until Hamburg is reached. In Hamburg turn west and go $\frac{1}{2}$ mile then turn north on a narrow road and go 3 miles up one hill after another. One mile east of this narrow road, after the 3 mile point is reached, is the abandoned area where erosion has held full sway for many years.

Mineralogy

No rock outcrops occur in the area, the minerals found are present in loose boulders, concretions, or as sand. The minerals found are as follows:

Albite (Peristerite): Very good masses showing the bluish chatoyancy have been found. This material should take a good polish.

Calcite: Dark brown earthy concretions (resembling claystones) can be found in almost any shape and size.

Fluorite: Small dark purple masses on peristerite.

Magnetite: This is very common and occurs in many places in the area. It occurs as small black grains in a brownish sand forming magnetite sand. Most of the sand is quartz. One pound of this sand contains 20 grains (troy weight).



Here is where Roy obtained his first samples of magnetite sand.

of magnetite — the magnetite being extracted with an ordinary horseshoe magnet. It is interesting to record that in many cases the sands, both quartz and magnetite, are of the same size.

Quartz: Common as smoky, massive, associated with peristerite, and as milky (?), massive, associated with tourmaline. The latter variety is intermediate between smoky and milky, being a little more milky than smoky.



One of the "ditches" where peristerite, in loose boulders, occurs.

Tourmaline: Small dark brown lustrous crystals in a milky (?), massive, quartz. The crystals are so deep colored as to appear black.

Editor's Note: The writer of this interesting article is a youngster who is only 15 years of age. He has a large amount of the magnetite sand on hand and would no doubt be glad to exchange it for other specimens. His address is 211 N. Park Avenue, Batesville, Ind.

Detach here or nominate by letter if you do not wish to mail this page

MEMBERSHIP NOMINATION BLANK
ANNUAL DUES \$2.00 A YEAR

Secretary, Rocks and Minerals Association,
Box 29, Peekskill, N. Y.

I nominate for membership in the Rocks and Minerals Association and to receive *Rocks and Minerals Magazine*:

(1) Name _____
Address _____

(2) Name _____
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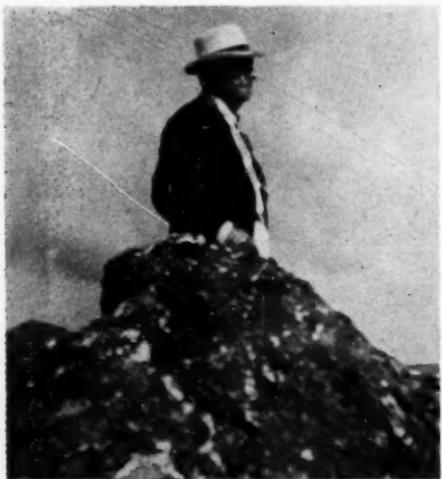
Name and address of _____
Nominating Member _____

(Please print or write plainly)

19.....

H. ALBAN ANDERSON

(July 8, 1867 — April 18, 1942)



*A recent photo of Mr. Anderson
(atop Mt. Mansfield in the Green Mts. of
Vermont)*

It is with much sorrow that we have to announce the death of H. Alban Anderson, of Peekskill, N. Y., who passed away at 7:00 a.m. Saturday, April 18, 1942, after a lengthy illness. He was 74 years old.

Mr. Anderson was one of Peekskill's most distinguished citizens. Though a banker and a lawyer by profession, to his intimate friends he will always be remembered as a newspaper man and a mineral collector.

Mr. Anderson was born in Peekskill on July 8, 1867, the son of Homer and Lena Stinson Anderson. He attended Peekskill Military Academy and was graduated from Cornell University in 1890 and from the New York University Law School in 1892 and was admitted to the bar shortly afterward.

During the Spanish-American War he was a newspaper correspondent for the *New York Tribune* during which period he was stationed at many army camps particularly on Long Island and the State

Camp near Peekskill. Mr. Anderson had the admirable trait of making friends easily. He was most gracious for any favor shown him no matter how slight, he never betrayed a trust nor was he too forward. His very courteous manner, friendly smile and cordial greeting endeared him to officers and men alike so that he was always the most popular man in camp. Officers having news for the press would hold them for him alone. His many newspaper articles were as outstanding as was his personality so that a large number of papers were sold on the strength of them. Many an officer was heard to say that if he wanted to learn what was new in camp all he had to do was to buy a copy of the *Tribune* and read Anderson's articles. Mr. Anderson had a style all his own; some of his friends stated, years later, that if he took up newspaper work again they would recognize his articles without being told he had written them. Mr. Anderson loved newspaper work and he also loved army life but his ambition to follow one or the other as a life's work was never realized. He became a banker and since 1933 was engaged in private law practice.

Mr. Anderson had a most remarkable mind which coupled with his vast knowledge on a large number of subjects amazed many. No matter what subject one might bring up, Mr. Anderson was able to converse easily on it. He was also noted as a gifted orator and a very fine after-dinner speaker.

From his early boyhood, Mr. Anderson was intensely interested in mineralogy. It was not, however, until *Rocks and Minerals* was founded when he became an intimate friend of its editor, that he began a collection of minerals. During the past 15 years his collection grew by leaps and bounds. He bought liberally and of the choice cabinet variety. He traveled widely, visiting many localities which often resulted in some splendid specimens being added to his collec-

tion. His many friends contributed a large number of fine specimens so that at the time of his death the collection numbered several thousands of outstanding specimens. The Anderson Collection is one of the finest in the Hudson Valley. No disposition as yet has been made of

this very fine mineral collection.

He is survived by three daughters, the Misses Dorothy, Frances, and Barbara, a brother, Douglas, all of Peekskill, and a sister, Miss Katherine Anderson of Kingston, N. Y. His wife, the former Grace Slack, died three years ago.

WILLIAM OLIVER SMITH

(July 15, 1879 — April 4, 1942)

William Oliver Smith, son of Jack and Nellie Smith, was born at Carrollton, Mo., on July 15, 1879 and died at his home in Kimball, Nebraska, on April 4, 1942, at the age of 62 years, 8 months, and 19 days.

He spent his childhood and completed his schooling in the town in which he was born. As a young man he spent about three years in the lumber camps of Washington and Oregon.

Mr. Smith moved with his family to Kimball on December 8, 1919, where he has resided since. He was always known to his friends as "Bill" and ever since his boyhood he collected rocks and minerals. He was an expert lapidist. Geologists and mineralogists from all over the country have honored him and his work by their many visits to his home and shop. On January 23, 1930, he became a member of the Rocks and Minerals Association which membership was continued up to the time of his death. The following words of tribute are contributed by Mr. Smith's very warm friend, the Rev. John C. Weston, of Kimball, Nebraska.

"Since my hobby is the collecting of rocks and minerals, I immediately found a friend in Mr. William O. Smith, upon my arrival in Kimball. He was known from coast to coast by many collectors, and lapidists.

"It is needless to say that it was with very deep sorrow I officiated at the funeral of my dear friend, William O. Smith. He suffered a relapse of the influenza

of three years ago which left his heart very weak and necessitated extreme care on his part to stay with us these three years. He died suddenly on April 4, 1942.

"Bill Smith was never lonely in life for he had a devoted wife, son and two daughters as well as a great love of nature in hunting, fishing and the collecting of rocks and minerals and their cutting and polishing. He was one of few who, because of his mechanical ingenuity, was able to go into the shop of a gem cutter and though the man did no work while Mr. Smith was present, he could, by simply looking at the tools and equipment, go home and make duplicate tools and equipment with his own hands and to use them in his own shop to cut specimens to his heart's content. Bill Smith learned his hobby the hard way and had unselfishly shared it with a large number of collectors and friends.

"He now has his only son, Nelson Smith, doing graduate work in geology at the University of Wyoming at Laramie. A splendid tribute of scholarship to a father who always encouraged his son in this wonderful field of endeavor."

Mr. Smith leaves to mourn his sudden departure his wife, two daughters, Mrs. Cleo White of Kimball, and Mrs. Decla Kay of Denver, and a son, Nelson, of Laramie, Wyoming; two brothers, Harry O. Smith of Payette, Idaho, and Otis Smith of Kimball, and two grandchildren, besides a large number of friends and acquaintances.

THE SHULAK COLLECTION OF MINERALS

One of the finest private mineral collections in the United States, the Shulak Collection of Chicago, Illinois, is offered for sale. This huge collection consists of 15,000 large, beautiful and choice specimens which have been gathered from all parts of the world, and cover the entire range of mineralogy.

The collection represents the life work of one man, the Rev. Francis X. Shulak, S. J., Professor of Geology at St. Ignatius College, Chicago, from 1870 to 1901. The bulk of the collection was assembled by him between 1870 and 1890, though there have been constant additions since. In obtaining the minerals Father Shulak utilized every possible source of supply. He purchased from Dr. A. E. Foote, of Philadelphia, Pa.; George L. English, of New York City; Ward and Howell, of Rochester, N. Y., and many other dealers. He obtained specimens from the Smithsonian Institution, the Ecole des Mines, Paris, France, and the Columbian Exposition exhibits. Many choice specimens were gifts from friends such as Prof. Edward L. Berthoud, of Golden City, Colorado; Dr. Ried, of Black Hawk, Colorado; Prof. Smith, the Territorial Geologist; Mr. Shirmer, of the U. S. Mint; Mr. J. George, Superintendent of the zinc mines at Franklin Furnace, N. J.; and many others. Father Shulak wrote to institutions in all parts of the world enlisting their services in gathering specimens for him from their localities. He himself travelled widely in search of specimens. The present choice collection of 15,000 specimens shows what the interest and persistence of one man can accomplish.

During the lifetime of Father Shulak, the collection was widely known and visitors flocked to the College Museum to view it. But after his death in 1903, it lacked a full-time curator and so was not kept before the public eye. It is for this reason that many of the present day collectors haven't heard of it.

As to the quality and value of the collection, several experts have declared, for example, that the quartz group is the

finest in existence. It includes every shade of color from the deepest black to a white watery clearness and contains many superb specimens of amethyst, some individual pieces weighing as much as 300 lbs. with crystals four inches in diameter.

The metal groups include many exceptionally fine pieces. Gold and silver are amply presented in every form—crystals, wire, nuggets, dust. The wide range of copper crystals and pseudomorphs presents specimens from Michigan, Pennsylvania, Maryland, Wyoming, Utah, Nova Scotia, Western Canada, South America, and Austria.

The Shulak Collection includes all of the common minerals and most of the rare ones. This makes it ideal for the geology department of any university, while the size and attractiveness of many of the specimens make it a worthy collection for any museum.

Those interested in further particulars should write Rev. N. H. Gelin, S. J., St. Ignatius High School, 1076 W. Roosevelt Road, Chicago, Illinois.

A Good Stunt If It Will Work

In the Beekmantown formation exposed on the W. J. Neal farm near Fonda, N. Y., are many fine rock crystals, similar to the Herkimer County "diamonds" of Middleville, N. Y. Drs. A. C. Worth and L. P. Brown, of Albany, N. Y., have visited the locality a number of times and always found good crystals. The finest crystals found by Dr. Worth came from the excavated material around woodchuck holes of which there were a number on the farm. So good were these crystals and so easily collected—they were all lying on top of the ground—that Dr. Worth is considering catching some woodchucks and training them to dig crystals for him.

A good stunt if it will work, Doc, and when you get the woodchucks well trained, mark us down as the first on your list for the loan of one of them.

ROCKY MOUNTAINS CONVENTION (SECOND NOTICE)

Correspondence is solicited from persons contemplating attending the Convention of the Rocky Mountain Federation of Mineral Societies, (Salt Lake City, Utah, August 29-30, 1942), who are desirous of information in advance regarding field trips in out of the way places.

Mr. A. Reeves
628 Dooly Block
Salt Lake City, Utah

Mrs. C. W. Lockerbie
223 West 9th South St.
Salt Lake City, Utah
Publicity Committee

With Our Dealers

The Gem Shop of Helena, Mont., have just issued 7 large sheets covering some choice specimens in their stock. These sheets are 8½ x 10½ inches in size and punched so that they may fit standard loose leaf notebooks. As new sheets are issued they will also be punched. A charge of 10c is made for the sheets but a number of circulars, etc., are also included.

Warner & Grieger of Pasadena, Calif., are featuring in this issue a special offer of Bisbee, Ariz. minerals. These will go like hot cakes once our readers spot their advertisement.

H. Goudey of Jamestown, Calif., is offering some more interesting minerals in his full page ad in this issue.

W. Scott Lewis of Hollywood, Calif., is acquiring a most enviable reputation as an editor and publisher. His editorial in the April-May issue of his *Mineral Bulletin* is a dandy, worthy of appearing in any of our great dailies. If any of our readers do not get his interesting bulletin regularly than our advise to you is—look his ad up and then subscribe.

It is a pleasure to have the Mineral Supply House of Spokane, Wash., back with us again. They are offering two attractive buys in this issue. Look the ad up as their offer will surely interest you.

R. P. Matteson of Phoenix, Ariz., is offering a bargain of beautiful Arizona minerals. Look his ad up.

Collectors' Tales

TO DUST RETURNETH

Last fall while hunting deer near Mt. Bigelow, Maine, Andy Snyder, my hunting partner, and I decided to spend a night at Chain of Ponds. On the way we stopped at the town of Flagstaff for supplies. On the porch of the general store in Flagstaff was a white rock which I picked up and threw into the car for investigation in daylight. We proceeded to our destination, 30 miles away, spent the night as planned, and breakfasted along a stream called Alder Brook. Here, while munching a sandwich, I took the rock out of the car to examine it. It proved to be nothing but a piece of white quartz.

At this point Andy looked at it, took it from me, and walked into the woods a few yards. He carried the quartz to where a ledge of the same material occurred and fitted the piece right into a spot where it unquestionably had been originally.

"Last spring," said Andy, "I broke this piece out of the ledge and tossed it near the road. Not only did you find the piece 30 miles away, but without knowing it, you brought it back to its original home."

Truly this was a coincidence—most unusual.

Leo Neal Yedlin

Clubs Affiliated With the Rocks and Minerals Association

ARIZONA

Mineralogical Society of Arizona

Geo. G. McKhann, Sec., 909 E. Willetta Street, Phoenix.

Meets at the Arizona Museum in Phoenix on the 1st and 3rd Thursday of each month.

CALIFORNIA

East Bay Mineral Society

Miss Marjory Welch, Sec., 3268 Central Avenue, Alameda.

Meets on the 1st and 3rd Thursdays of each month (except July and August), at 8:00 p.m., in the Lincoln School Auditorium, 11th and Jackson Sts., Oakland.

Northern California Mineral Society, Inc.

L. M. Demrick, Sec., 424 Ellis St., San Francisco.

Meets on the 3rd Wednesday of the month at the Public Library in San Francisco.

Pacific Mineral Society

Mrs. Maude Oke, Sec., 9115 S. Harvard Blvd., Los Angeles.

Meets on the 2nd Friday of each month at 6:30 p.m., at the Hershey Arms Hotel, 2600 Wilshire Blvd., Los Angeles.

Southwest Mineralogists

Mrs. Pearle Arnold, Cor. Sec., 2132 W. 76th St., Los Angeles.

Meets every Friday at 8:00 p.m. at Manchester Playground, 88th and Hoover Sts., Los Angeles.

COLORADO

Canon City Geology Club

F. C. Kessler, Sec., 1020 Macon Ave., Canon City.

Meets on the 1st and 2nd Saturdays of each month at 9:00 a.m. in the High School Building, Canon City.

Colorado Springs Mineralogical Society

Mrs. Helen S. Caldwell, Secretary, 221 N. 14th, Colorado Springs.

Meets usually at the Lenox House, Colorado College Campus, Colorado Springs, on the 2nd Monday of each month at 7:30 p.m.

CONNECTICUT

Bridgeport Mineral Club

Mrs. Julia Walker, Sec., 55 Eaton Street, Bridgeport.

Meets in the Bridgeport Public Library on the 3rd Monday of the month.

Mineralogical Club of Hartford

Frank P. Rockwell, Secretary, 88 Fern St., Hartford

Meets the 2nd Wednesdays of each month, at 8:00 p.m., at 249 High St., Hartford.

New Haven Mineral Club

Mrs. Lillian M. Otersen, Sec., 16 Grove Place, West Haven.

Meets on the 2nd Monday of the month at the Y. W. C. A. on Howe St., New Haven.

IDAHO—OREGON

Snake River Gem Club

Mrs. A. Ingraham, Sec., Box 714, Ontario, Ore.

Meets alternately in Payette, Idaho, and Ontario, Oregon, (two small cities on the Snake River) on the 3rd Tuesday of every month.

ILLINOIS

Junior Mineral League

William Dacus, Sec., Morgan Park Junior College, 2153 W. 111th St., Chicago.

MAINE

Maine Mineralogical and Geological Society

Miss Jessie L. Beach, Sec., 6 Allen Avenue, Portland.

Meets last Friday of the month at 8 p.m., at the Northeastern Business College, 97 Danforth Street, Portland.

MARYLAND

Natural History Society of Maryland

2103 N. Bolton Street, Baltimore.

Office hours, Tuesdays and Fridays, 10:00 a.m. to 5:00 p.m.

MASSACHUSETTS

Boston Mineral Club

Mrs. Grace G. Dearborn, Sec., 40 Mt. Vernon St., Cambridge.

Meets on the 1st Tuesday of the month at 8:00 p.m., at the New England Museum of Natural History, 234 Berkeley St., Boston.

Connecticut Valley Mineral Club

Mary E. Flahive, Secretary, 96 South St., Florence

Meets on the 1st Tuesday of each month at 8 p.m. at various institutions in the Connecticut Valley.

MISSOURI

National Geologist Club

Mrs. D. P. Stockwell, Pres., Mt. Olympus, Kimmswick.

NEVADA

Reno Rocks and Minerals Study Club

Mrs. Rader L. Thompson, Sec., Box 349, R2, Reno.

Meets on the 1st Wednesday of each month, at 7:30 p.m., at the Mackay School of Mines, Reno.

Western Nevada Mineral Society

Miss Helen Griffing, Sec., 231 Mary St., Reno.

Meets on the 2nd Wednesday of each month at 7:30 p.m., at the State Bldg., Reno.

NEVADA

Mineralogical Society of Southern Nevada
Paul Mercer, Acting Secretary, Bureau of Mines, Boulder City.

Meets on the 2nd Monday of each month at Las Vegas High School and on the 4th Monday of each month at Boulder City High School—both meetings at 8:00 p.m.

NEW JERSEY**Newark Mineralogical Society**

Louis Reamer, Secretary, 336 Elizabeth St., Orange.

Meets on the 1st Sunday of the month at 3 p.m. at Junior Hall, corner Orange and North 6th Streets, Newark.

New Jersey Mineralogical Society

O. B. J. Fraser, Sec.-Treas., 27 Stoneleigh Park, Westfield.

Meets on the 1st Tuesday of the month at 8 p.m. at the Plainfield Public Library.

NEW MEXICO**New Mexico Mineral Society**

R. M. Burnet, Sec.-Treas., Carlsbad.

Society of Archaeology, History and Art
Carlsbad.**NEW YORK****Chislers, The**

Miss Evelyn Waite, Sponsor, 242 Scarsdale Road, Crestwood, Tuckahoe.

Queens Mineral Society

Mrs. Edward J. Marcin, Sec., 46-30—190th Street, Flushing.

Meets on the 1st Thursday of the month at 8 p.m. at 8501 - 118th St., Richmond Hill.

OKLAHOMA**Oklahoma Society of Earth Sciences**

W. P. Smiley, Sec.-Treas., 229 W. Jefferson Street, Mangum.

Collectors' Kinks**Another method for attaching labels to specimens**

Many collectors like to have small labels attached to specimens but since such labels very frequently fall off, the practice is not a universal one. It is strange that adhesive fluids now made do not seem to stick to minerals whereas those used by the old Foote Company of some 30 years ago did—we have a number of old Foote minerals with labels so firmly attached that they would have to be soaked in water to loosen.

Meets on the 2nd Tuesday of each month, at 7:30 p.m., at the Historical Museum, Mangum.

PENNSYLVANIA**Thomas Rock and Mineral Club**

Mrs. W. Hersey Thomas, Pres., 145 East Gorgas Lane, Mt. Airy, Philadelphia.

Meets on the 3rd Friday of each month, at 8:00 p.m., at the home of its president, Mrs. Thomas.

VERMONT**Mineralogical Society of Springfield**

Victor T. Johnson, Sec., 11 Elm Terrace, Springfield.

Meets on the 3rd Wednesday of each month at 8:00 p.m. at the homes of members.

WASHINGTON**Gem Collectors Club**

Mrs. Lloyd L. Roberson, Sec., 522 North 70th Street, Seattle.

Meets on the 1st and 3rd Tuesday of each month (except during the summer) at 8:00 p.m., at the Y. M. C. A.

Washington Agate and Mineral Society

Monroe Burnett, Sec., 802 S. Central St., Olympia.

Meets on the 1st Monday of the month, at 7:30 p.m. at the home of some member.

WISCONSIN**Wisconsin Geological Society**

Paul Ziemke, Sec., 2032 W. Keefe Ave., Milwaukee.

Meets on the 1st Monday of each month at 8:00 p.m., at the Public Museum in Milwaukee.

With the rather recent advent of Scotch tape on the market, which seems to stick very firmly to minerals, this tape can be used to advantage by a collector. Attach your paper label to a specimen as heretofore and then with strips of the tape, anchor it firmly to the specimen. The label may be entirely covered with the tape which being colorless and transparent does not dim the printing.

Club and Society Notes

New York Mineralogical Club

A regular meeting of the New York Mineralogical Club was held on April 15, 1942 at the American Museum of Natural History with President John N. Trainer in the chair and an attendance of seventy-one members and guests. The meeting was called to order at 8:02 P.M. The Secretary, M. Allen Northup, was unable to attend because of illness and the Chair appointed Dr. Daniel T. O'Connell to serve as Secretary pro tem. The reading of the minutes of the last meeting was postponed, since they were not available.

The Secretary read the list of nominations for officers of the Club for 1942-43 as submitted by the Nominating Committee which was as follows:

President—John N. Trainer

1st Vice-President—Walter E. Kuenstler

2nd Vice-President—Dr. Frederick H.

Pough

Secretary—M. Allen Northup

Treasurer—James A. Taylor

Directors—Gilman S. Stanton — Ernest Weidhaas

No additional nominations having been received, according to the by-laws, the above named were declared elected. The Chair discharged with thanks the Nominating Committee consisting of Miss Richards, Chairman and O. Ivan Lee and G. E. Ashby.

The Excursion Committee reported that the Bedford Quarry had been the most popular choice of the members for a field trip and that such a trip would be held on Sunday, May 17th or 24th, 1942.

President Trainer announced the recent death of Mr. Charles W. Hoadley, eminent architect, and old-time member of the Club, an enthusiastic collector and able mineralogist. The Chair also called attention to the publication of the Memorials of Olaf Andersen and James F. Morton, which appeared in *The American Mineralogist* for March, 1942, Vol. 27, No. 3, pp. 192-195 and pp. 200-202.

Mr. Martin L. Ehrmann extended an invitation to the members on behalf of the Plainfield Mineral Society to be present at the Public Library of Plainfield, N. J., on Tuesday, May 5, on the occasion of the conferring by them of Honorary Membership on Prof. Charles Palache who will also deliver a lecture on mineralogy.

At 810 P.M. the chairman introduced the speaker of the evening, Prof. Paul F. Kerr of Columbia University who, under the title of "A Mineralogical Excursion along the Andes," described his trip by aeroplane around South America to visit some of the

more important mineral districts of our neighbouring continent to the South. The lecture was illustrated by Kodachrome slides and numerous sketch maps revealing the localities and geological relations of the mineral districts of Ecuador, Bolivia, Chile and Brazil which yield Copper, Tungsten, Tin, Silver, Nitrate, Gold, Zirconium, Precious Stones, Iron, Manganese, Bauxite and Quartz Crystals. Prof. Kerr concluded at 9:15 P.M. and, following a question period, received a formal vote of thanks from the Club.

The Chair announced the program for the meeting of May 20th, which will consist of a Members' Symposium to be participated in by Members: Pough, Northup, Lewis, Karlsson, and Ehrmann, and which will be followed by refreshments. The meeting adjourned at 9:20 P.M.

Respectfully submitted,
Daniel T. O'Connell
Secretary pro tem.

New Jersey Mineralogical Society

On Tuesday, May 5th, the Society held one of its most successful meetings. Not only was it largely attended, with many members of the New York Mineralogical Club present headed by their president, Mr. John N. Trainer, but the guest speaker was America's most eminent mineralogist, Dr. Charles Palache, of Harvard University, whose subject was "Gossan Minerals." Dr. Palache's entire talk was recorded on records of which copies will be presented to him and also to Harvard University where they will be kept for posterity. As far as is known this is the first time in history that such a recording has been made.

After his talk, Dr. Palache was presented with a diploma nominating him as an Honorary Member for life of the Society. The presentation was made by Mr. Martin Ehrmann.

General J. S. Hatcher, Commandant of the Aberdeen Proving Grounds, Aberdeen, Md., a special guest of the Society, spoke a few words. He was introduced by Mr. Joseph D'Agostino, President of the Society.

Another guest was Mr. Irving Hoffman who painted the large portrait of Dr. Palache that now hangs in Harvard University.

A regular meeting of the Society will be held on Tuesday, June 2nd, at 8:00 p.m., in the Plainfield Public Library, Plainfield, N. J. The speaker will be O. B. J. Fraser, of the International Nickel Company of New York City, who is also the Secretary-Treasurer of the Society. Mr. Fraser's subject will be "Nickel from Ore to Metal."

Vermont Mineralogical Society

"Springfield—A new organization, to be known as the Vermont Mineralogical Society, has been formed, which will include all geological or mineralogical organizations in or near Vermont, also those interested individuals who do not belong to such local clubs.

Members of all clubs are urged to join the new state organization by sending in the name of their club. Interested persons in localities where no local club exists are eligible for membership and should send in their names. For the present there will be no membership fees.

Until a permanent set-up has been arranged the officers of the Springfield Mineralogical Society will carry on the business of the state organization. Applications for membership should be sent to Victor Johnson, secretary, 11 Elm Terrace, Springfield, Vermont.

Plans are being made to have a number of statewide gatherings with lectures and also several collecting expeditions during the coming spring and summer."

Mineralogical Club of Hartford

The third field trip of the year will be held on Sunday, June 21st to the Connecticut Trap Rock Co.'s quarry at Plainville, Conn. If arrangements can be made the Club may also visit the barite mines of Cheshire, Conn.

Riverton Geological Society

The Riverton Geological Society of Riverton, Wyo., observed its fourth anniversary at its regular meeting that was held on Monday evening, April 13th. The following officers were elected for the ensuing year:

President—Norbert A. Ribble

Vice-President—A. N. Talcott

Secretary-Treasurer—C. C. Hopkins

Director (3 years)—John Pitts

Director (2 years)—Charles Ridgeway

Director (1 year)—L. E. Oyler

A number of interesting talks by members rounded out the program for the evening.

Bibliographical Notes

Sponge Chromium: By C. G. Maier.

An interesting report on the theory and principles underlying the possibilities of producing a new form of chromium, namely sponge.

109 pp., 17 illus., price 20c (Bull. 436)

Seismic Effects of Quarry Blasting: By J. R. Thoenen and S. L. Windes

The object of this bulletin is to review briefly the previous publications so that the reader may follow the progress of the research and to supply the technical details supporting the conclusions reached.

83 pp., 45 illus., price 15c (Bull. 442)

The above two publications have been issued by the U. S. Bureau of Mines and are for sale at prices quoted by the Superintendent of Documents, Washington, D. C.

Natural History Hobbies:

This most interesting little booklet is designed to bring to your attention the great possibilities contained in natural history hobbies. The various hobbies, such as astronomy, botany, fossils, insects, rocks and minerals, etc., are of necessity but briefly outlined in this 24 page booklet.

Issued as Miscellaneous Publication No. 3 by the Cincinnati Museum of Natural History, Parkway at Walnut, Cincinnati, Ohio.

The Discovery of Pinacate Volcano: By Ronald L. Ives

The Pinacate Volcano in the desert region of Sonora, Mexico, was the first recognized extinct volcano in North America—its identification being made in 1701.

This interesting account by the Vice-President of the Rocks and Minerals Association appeared in the March issue of *Scientific Monthly* (Lancaster, Penn.), pp. 230-237, 8 figs.

Atypical Subalpine Environments: By Ronald L. Ives

Intensive regional studies in the Colorado headwaters area in Grand, Boulder, Larimer and Jackson Counties, in northern Colorado, disclose that the subalpine life zone contains three distinct plant communities.

Ecology, Vol. 23, No. 1, January, 1942, pp. 89-96, Fig. 4.

The Freda, N. Dak., Meteorite: A nickel-rich Ataxite: By E. P. Henderson and Stuart H. Perry.

A unique little meteorite, weighing 268 grams, was found in May, 1919, by Henry G. Meyer while plowing sod 2 miles southwest of Freda, N. Dak.

The authors described the meteorite in the Proceedings of the U. S. National Museum, Vol. 92, No. 3134, p. 21-23, 4 pls. (Washington, D. C.)

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Handbook For the Amateur Lapidary by J. H. Howard, 16 chapters covering all phases of gem cutting and polishing, 141 pp., 14 illus., price \$2.00. J. H. Howard, 504 Crescent Ave., Dept. R., Greenville, S. C.

History and Geology of the Royal Gorge, an illustrated souvenir booklet with maps and drawings locating 54 minerals for touring collectors. 50c postpaid. F. C. Kessler, Canon City, Colo.

Art of Gem Cutting—Just out. Latest and most complete book for the lapidary. \$2.00. Price list of American Gem Rough free. Sample sack 10c. Gem Exchange, Lake Bluff, Ill.

Fluorescence of Minerals by Chester Slawson. Excellent color plate of the Cranbrook display, plus text. 35c postpaid. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

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Best Specimens Limb Sections, agate, fossil woods from collections of members of Yakima Mineral Club to exchange. Write M. R. Belcher, R. F. D., Yakima, Wash.

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Special Offer: We will send 30 ores, including the more important ones, of 15 strategic war metals for 2.50 postpaid. List of gem materials, mineral crystals, fluorescent minerals free. Colorado Mineral Exchange, Salida, Colo.

Mineralight, series 370 complete, 2 trans., 1 stor. bat., 1 bat. charger, hydrom. lamp, '986 filter, \$50. Cost \$100. Edmunds, 6315 Ogontz Ave., Philadelphia, Penn.

Facet Cutting Stones from Brazil. Beryl, aquamarine, topaz, tourmaline, garnet, amethyst, \$10.00 per lb. and up. Stones for collections. C.O.D. Check or Money Order. G. Orcutt, Rua Sao Paulo 2484, Bello Horizonte, Minas Geraes, Brazil.

Beautiful Opals—Direct from Australia. Lapidaries Parcel 10 ounces cutting opal (about 50 stones) \$10.00. Collectors specimens—good attractive parcels \$5.00, \$10.00. Dozen small black opals \$5.00. 10 ounces small opal chips \$5.00. Illustrated catalogue No. 47 free. Natural History Books (thousands), lists free. Norman Seward, "Opal House," Melbourne, Australia.

Minerals, Fossils, Indian Relics, Books, Coins, Curios, Stamps, Old Glass. Catalogue 5c. Indian Museum, Osborne, Kansas.

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Large Dark Purple Amethyst Crystals containing gold, 75c to \$1.50 postpaid. Monroe Mineral Store, Monroe, N. Y.

Scott Rose Quartz Co.—Rose Quartz, Black Hills specimens, all kinds and colors; for rock gardens, cabinets, etc. Boxes: 24 specimens, \$1.00; 18 specimens, 50c; 15 specimens, 35c. Postage paid. Box 516, Custer, S. Dak. Send stamp for price list.

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Uraninite and select North Carolina specimens. Paul Silver, Genl. Sup't., Feldspar Producing Co., Spruce Pine, N. C.

Millerite, Jelinite, Oolitic Limonite, Grunerite—Benedict P. Bagrowski, 1014 Vermont, Lawrence, Kansas.

New England Minerals for sale or exchange. Correspondence solicited. Rudolf C. B. Bartsch, 36 Harrison St., Brookline, Mass.

25 Colored Ozarks Specimens, rocks, minerals, crystals and cutting materials 1.50 postpaid. John Jennings, Eureka Springs, Ark.

Cutting Agates, Woods, Minerals—Bishop's Agate Shop, North Bonneville, Wash.

Chinese Carvings and Cabochons in Jade and other stones. Prices reasonable. Send for price list. Chas. O. Fernquist, N. 4108 Walnut, Spokane, Washington.

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Choice Fluorescent and Phosphorescent Polished Slabs of unsurpassed beauty with cold quartz lights, 2x3 to 4x6, \$1.00 to \$6.50 depending on material. All highest quality. Cabinet specimens. Edwin Skidmore, R.F.D. 1, Box 247, Westfield, N. J.

Fluorescent Calcite mixed with sphalerite and galena. I have been mining specimens for ten years and this is the only calcite I have found which will fluoresce under the black bulb or quartz light and only a small quantity available. For sale or trade for good willemite or wernerite. J. A. Robertson, Box 105, Baxter Springs, Kansas.

Fluorescent Mexican Fluorspar—Prices on request. A. J. Wallace, 118 Lawnside Avenue, Collingswood, N. J.

